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February 17, 2000

Northwest Environmental Advocates  
133 SW 2nd Avenue Suite 302  
Portland OR 97204  
Attn: Nina Bell

Re: Columbia River - sediment contamination

Dear Nina Bell;

I spoke to you this morning regarding the lawsuit filed to halt dredging of the Columbia River. Please consider the enclosed information.

One contaminant that is given little if no publicity is fluoride. It is stated that fluoride in sediment may persist for several millions of years. Therefore, the presence of this pollutant in sediment must be given careful consideration as dredging may disturb many tons that have accumulated over time. Studies both in the laboratory and in the field in the Columbia River point to a concentration of 0.2 mg fluoride per liter (ppm) as being the critical upper level for the survival of salmon species at various stages of their life cycle. In addition, many organisms that provide feed are adversely effected by fluoride.

Over the years, fluoride has entered the Columbia River in large quantities from numerous sources. The smelter and phosphate fertilizer operation in Trail, British Columbia has been a major offender as well as aluminum manufacturing plants on the Columbia and Snake Rivers. The preparation of uranium isotopes for use in the atomic bomb released large quantities of fluoride into the environment. Whether or not Hanford was involved at this stage of preparation of materials for the bomb is not known to me; but, should be investigated.

One source of fluoride that is downplayed is the practice of adding fluoride to municipal drinking water supplies in the process of fluoridation. There are now a number of communities along the banks of the Columbia and Snake Rivers that have adopted this practice. This Session of the Washington State legislature has seen the 4th attempt to pass a Bill for mandatory fluoridation of all water supplies serving more than 1,000 customers.

The products most often used to provide the fluoride ion are fluosilicates (hydrofluosilicic acid or sodium silicofluoride (powdered form)). These are toxic wastes that are removed from the stacks of the phosphoric acid and phosphate fertilizer industries and introduced directly into the drinking water supply. It is bizarre that these products are now banned from ocean dumping by international agreement and, if not sold as fluoridation agents, must be neutralized and disposed in an approved toxic waste site.

It can be shown that surface run-off into storm sewers etc. from such procedures as fire fighting, car washing, garden sprinkling from a fluoridated community are very much higher than the 0.2 mg fluoride per liter found critical to salmon survival. Typically, drinking water is fluoridated to reach a concentration of 0.7- 1.2 mg fluoride /L. The concentration of fluoride entering the fresh water ecosystem from sewage treatment plants of fluoridated communities is also much higher than the critical level. Sewage sludge, frequently placed on agricultural land and some forestry operations, can deliver

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fluoride to the fresh water environment by leaching into surface and ground water.

The contribution of fluoride to the demise of salmon species on the Columbia and other rivers in the Pacific Northwest and British Columbia Canada is downplayed. But, the fact remains that over time many tons have ended up in sediment. When it is known that this pollutant can persist for millions of years the threat is obvious. There is a case in Newfoundland where fluoride contributed by a phosphoric acid plant accumulated in sediment contributed to a massive fish-kill when the sediment was dredged to make way for a larger dock (I have mislaid my paper on this event but will send it when located). Let it not happen here!

Every source of fluoride must be identified and controlled. The contribution of one source, the deliberate addition of toxic waste into drinking water in the process of fluoridation, is estimated to be second only to the manufacture of phosphate fertilizer and ahead of aluminum smelting. We would like your support in banning this procedure on the grounds that it is an environmental issue.

I look forward to your reply.

Sincerely, (b) (6)

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